# Scope & Sequence

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| **Course Name:** Practicum in Agriculture, Food, and Natural Resources/ExtendedPracticum in Agriculture, Food, and Natural Resources  **TSDS PEIMS Code:** 13002505 (First Time Taken)  13002515 (Second Time Taken) | | **Course Credit:** 3.0  **Course Requirements:** Grade Placement 11 – 12.  **Prerequisites:** None.  **Recommended Prerequisites:** A minimum of one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster.  **Corequisites:** Practicum in Agriculture, Food, and Natural Resources. |
| **Course Description:** Extended Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. | | |
| **NOTE 1:** The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. This is a suggested scope and sequence for the course content. This content will work with any textbook, instructional materials or practicum experience. If locally adapted, make sure all TEKS are covered.  **NOTE 2:** Completion of skill sets may be demonstrated throughout the practicum. Therefore, content based on the TEKS does not have to be delivered sequentially. The major reason students take a practicum is to provide additional time on task for learning specialized skills. In most cases where the Extended Practicum is added to the Practicum, it is because the student is spending more than 15 hours per week at his/her training station (place of employment or internship).  **NOTE 3:** The information in this scope and sequence document does not describe detailed activities, because the activities will vary from student to student and training station to training station. The intent is that students incorporate and use previously learned knowledge and skills related to the career cluster. | | |
| **Practicum Plan** | **TEKS Covered**  **130.31. (c) Knowledge and skills.** | |
| **Section 1: Pre-Practicum**  Prior to beginning practicums, students will review and discuss professional standards and employers’ expectations, personal and workplace safety, effective problem-solving strategies, positive interpersonal skills, the principles of group participation and teamwork, appropriate work habits, ethical conduct, teamwork, and conflict-management skills. Students will also discuss the technical and academic skills required for the practicum, and put into place strategies for mastering any/all skills necessary to manage and perform work/practicum responsibilities.  Also prior to beginning their practicum experiences, students will agree to adhere to policies and procedures, to demonstrate positive work attitudes and behaviors, including punctuality and effective time management, to accept constructive criticism, to make ethical decisions, and to comply with all applicable rules, laws, and regulations in a consistent manner. Students will also review and discuss professional communications strategies and practices for effective working relationships, such as appropriate dress, grooming, and personal protective equipment.  Students, supervising instructors, and practicum experience supervisors will read and review locally created practicum checklist(s). Parents/guardians will also be provided with a copy. Checklist(s) will include all relevant TEKS along with rubrics for supervisor evaluations and student self-evaluations. Students will read, discuss, and demonstrate an understanding of the provided checklist and rubric criteria before beginning their practicum experiences | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (A) adhere to policies and procedures;  (B) demonstrate positive work behaviors and attitudes, including punctuality, time management, initiative, and cooperation;  (C) apply constructive criticism and critical feedback from supervisor and peers;  (D) apply ethical reasoning to a variety of situations in order to make ethical decisions;  (E) complete tasks with high standards to ensure quality products and services;  (F) model professional appearance, including using appropriate dress, grooming, and personal protective equipment; and  (G) comply with practicum setting safety rules and regulations to maintain safe and healthful working conditions and environments.  (2) The student develops a supervised agriculture experience program. The student is expected to:  (A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity;  (B) apply proper record-keeping skills as they relate to the supervised agriculture experience;  (C) participate in youth leadership opportunities to create a well-rounded experience program; and  (D) produce and participate in a local program of activities using a strategic planning process.  (4) The student demonstrates leadership and teamwork skills to accomplish goals and objectives. The student is expected to:  (B) demonstrate teamwork skills through working cooperatively with others to achieve tasks;  (C) demonstrate teamwork processes that promote team-building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution;  (D) demonstrate responsibility for shared group and individual work tasks;  (E) establish and maintain effective working relationships in order to accomplish objectives and tasks;  (F) demonstrate effective working relationships using interpersonal skills in order to accomplish objectives and tasks;  (G) negotiate and work cooperatively with others using positive interpersonal skills; and  (H) demonstrate respect for individuals, including those from different cultures, genders, and backgrounds, and value for diversity.  (5) The student demonstrates oral and written communication skills in creating, expressing, and interpreting information and ideas, including technical terminology and information. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary when analyzing information and following directions;  (B) employ verbal skills when obtaining and conveying information;  (C) review, use, and apply informational texts, Internet sites, or technical materials for occupational tasks;  (D) evaluate the reliability of information from informational texts, Internet sites, or technical materials and resources;  (E) interpret verbal and nonverbal cues and behaviors to enhance communication;  (F) apply active listening skills to obtain and clarify information; and  (G) facilitate effective written and oral communication using academic skills.  (6) The student develops management skills for agricultural resources. The student is expected to:  (G) describe and perform hazard analysis and follow safety laws. | |
| **Section 2: TEKS Checklist Components for Practicum in Agriculture, Food, and Natural Resources**  Students, parents/guardians, and instructional/workplace supervisors will review, understand, and agree to a checklist of practicum objectives. Checklists may be locally adapted/modified, but all corresponding TEKS Checklist Components must be addressed. | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (A) adhere to policies and procedures;  (B) demonstrate positive work behaviors and attitudes, including punctuality, time management, initiative, and cooperation;  (C) apply constructive criticism and critical feedback from supervisor and peers;  (D) apply ethical reasoning to a variety of situations in order to make ethical decisions;  (E) complete tasks with high standards to ensure quality products and services;  (F) model professional appearance, including using appropriate dress, grooming, and personal protective equipment; and  (G) comply with practicum setting safety rules and regulations to maintain safe and healthful working conditions and environments.  (2) The student develops a supervised agriculture experience program. The student is expected to:  (A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity; and  (B) apply proper record-keeping skills as they relate to the supervised agriculture experience.  (4) The student demonstrates leadership and teamwork skills to accomplish goals and objectives. The student is expected to:  (B) demonstrate teamwork skills through working cooperatively with others to achieve tasks;  (C) demonstrate teamwork processes that promote team-building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution;  (D) demonstrate responsibility for shared group and individual work tasks;  (E) establish and maintain effective working relationships in order to accomplish objectives and tasks;  (F) demonstrate effective working relationships using interpersonal skills in order to accomplish objectives and tasks;  (G) negotiate and work cooperatively with others using positive interpersonal skills; and  (H) demonstrate respect for individuals, including those from different cultures, genders, and backgrounds, and value for diversity.  (5) The student demonstrates oral and written communication skills in creating, expressing, and interpreting information and ideas, including technical terminology and information. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary when analyzing information and following directions;  (B) employ verbal skills when obtaining and conveying information;  (C) review, use, and apply informational texts, Internet sites, or technical materials for occupational tasks;  (E) interpret verbal and nonverbal cues and behaviors to enhance communication;  (F) apply active listening skills to obtain and clarify information; and  (G) facilitate effective written and oral communication using academic skills.  (6) The student develops management skills for agricultural resources. The student is expected to:  (C) practice equipment maintenance procedures;  (F) decide between replacement, maintenance, repair, and reconditioning of agricultural vehicles and machinery; and  (G) describe and perform hazard analysis and follow safety laws. | |
| **Section 3: Critical-Thinking and Problem-Solving: Practicum Check-In 1**  Students will discuss and demonstrate critical thinking and problem-solving skills as they participate in check-in(s) with supervisors throughout their practicum experiences. Students will analyze and evaluate their practicum experiences as they describe how they have applied critical-thinking and problem-solving skills, and alternative solutions to possible problems they have encountered thus far or may still encounter. Students will also be encouraged to discuss and predict what content knowledge and technical skills will be necessary for a successful practicum experience as well as a successful career in an agriculture, food, and/or natural resources-related field.  As part of their practicum experience, students will use appropriate and reliable computer applications/technology/materials to research, identify, and pursue relevant opportunities for licensure or certification, and demonstrate effective communication skills as they present their findings in a brief presentation to the supervising instructor. Students will also explain the principles of safe operation of tools and equipment related to the practicum with their supervising instructors. | (3) The student applies concepts of critical thinking and problem solving. The student is expected to:  (A) analyze elements of a problem to develop creative and innovative solutions;  (B) analyze information to determine value to the problem-solving task;  (C) compare and contrast alternatives using a variety of problem-solving and critical-thinking skills; and  (D) conduct technical research to gather information necessary for decision making.  (5) The student demonstrates oral and written communication skills in creating, expressing, and interpreting information and ideas, including technical terminology and information. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary when analyzing information and following directions;  (B) employ verbal skills when obtaining and conveying information;  (C) review, use, and apply informational texts, Internet sites, or technical materials for occupational tasks;  (D) evaluate the reliability of information from informational texts, Internet sites, or technical materials and resources; and  (G) facilitate effective written and oral communication using academic skills.  (7) The student demonstrates technical knowledge and skills required to pursue a career in the Agriculture, Food, and Natural Resources Career Cluster. The student is expected to:  (C) explain the principles of safe operation of tools and equipment related to the practicum; and  (D) pursue opportunities for licensure or certification related to chosen career path. | |
| **Unit 4: Check List Progress and CTSO Activities: Practicum Check-In 2**  During this check-in, students will discuss and self-evaluate their practicum check list, course requirements, and portfolio progress as well as any questions or problems they may have encountered. Students will also use appropriate technology and/or assigned materials to research and analyze leadership characteristics as well as teamwork processes. Students will research leadership and teamwork opportunities and other benefits offered by CTSO and/or other extracurricular student activities, such as FFA or 4-H, and prepare and effectively present a brief oral and/or written report on a CTSO or other extracurricular organization they may be willing to join or are already participating in. | (4) The student demonstrates leadership and teamwork skills to accomplish goals and objectives. The student is expected to:  (A) analyze leadership characteristics in relation to trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation;  (B) demonstrate teamwork skills through working cooperatively with others to achieve tasks; and  (C) demonstrate teamwork processes that promote team-building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.  (5) The student demonstrates oral and written communication skills in creating, expressing, and interpreting information and ideas, including technical terminology and information. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary when analyzing information and following directions;  (B) employ verbal skills when obtaining and conveying information;  (C) review, use, and apply informational texts, Internet sites, or technical materials for occupational tasks;  (D) evaluate the reliability of information from informational texts, Internet sites, or technical materials and resources; and  (G) facilitate effective written and oral communication using academic skills. | |
| **Section 5: Portfolios and Practicum Culminating Activities**  During their practicum experience, students will use appropriate technology and/or assigned materials to analyze the cost and maintenance of tools, equipment, and structures used in agriculture, describe, and develop marketing strategies for agricultural and natural resources, and review and develop long-range land, water, and air quality management plans. Students will demonstrate effective communications skills as they present their plans as well as their completed professional portfolio. Students will also reflect upon and discuss their practicum experiences as well as the skills they have developed as part of the practicum. Students will self-evaluate their strengths and weaknesses in technical skill proficiency, and discuss their analysis with their supervising instructor.  As a culminating project for the practicum, students will discuss the importance of agricultural and natural resources to individuals and society in a brief oral presentation. | (6) The student develops management skills for agricultural resources. The student is expected to:  (A) discuss the importance of agricultural and natural resources to individuals and society;  (B) develop long-range land, water, and air quality management plans;  (D) analyze the cost and maintenance of tools, equipment, and structures used in agriculture; and  (E) describe and develop marketing strategies for agricultural and natural resources.  (7) The student demonstrates technical knowledge and skills required to pursue a career in the Agriculture, Food, and Natural Resources Career Cluster. The student is expected to:  (A) develop advanced technical knowledge and skills related to the personal occupational objective;  (B) evaluate strengths and weaknesses in technical skill proficiency; and  (D) pursue opportunities for licensure or certification related to chosen career path.  (8) The student documents technical knowledge and skills. The student is expected to:  (A) create a professional portfolio to include information such as:  (i) attainment of technical skill competencies;  (ii) licensures or certifications;  (iii) recognitions, awards, and scholarships;  (iv) extended learning experiences such as community service and active participation in career and technical student organizations and professional organizations;  (v) abstract of key points of the practicum;  (vi) resume;  (vii) samples of work; and  (viii) evaluation from the practicum supervisor; and  (B) present the portfolio to interested stakeholders. | |
| **Extended Practicum Plan** | **TEKS Covered**  **130.32. (c) Knowledge and skills.** | |
| **Section 1: Pre-Practicum**  Prior to beginning practicums, students will review and discuss professional standards and employers’ expectations, personal and workplace safety, effective problem-solving strategies, positive interpersonal skills, the principles of group participation and teamwork, appropriate work habits, ethical conduct, teamwork, and conflict-management skills. Students will also discuss the technical and academic skills required for the practicum, and put into place strategies for mastering any/all skills necessary to manage and perform work/practicum responsibilities.  Also prior to beginning their practicum experiences, students will agree to adhere to policies and procedures, to demonstrate positive work attitudes and behaviors, including punctuality and effective time management, to accept constructive criticism, to make ethical decisions, and to comply with all applicable rules, laws, and regulations in a consistent manner. Students will also review and discuss professional communications strategies and practices for effective working relationships, such as appropriate dress, grooming, and personal protective equipment.  Students, supervising instructors, and practicum experience supervisors will read and review locally created practicum checklist(s). Parents/guardians will also be provided with a copy. Checklist(s) will include all relevant TEKS along with rubrics for supervisor evaluations and student self-evaluations. Students will read, discuss, and demonstrate an understanding of the provided checklist and rubric criteria before beginning their practicum experiences | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (A) participate in a paid or unpaid, laboratory- or work-based application of previously studied knowledge and skills related to agriculture, food, and natural resources;  (B) participate in training, education, or preparation for licensure, certification, or other relevant credentials to prepare for employment;  (C) demonstrate professional standards and personal qualities needed to be employable such as punctuality, time management, initiative, and cooperation with increased fluency;  (D) complete tasks with high standards to ensure quality products and services;  (E) employ teamwork and conflict-management skills with increased fluency to achieve collective goals; and  (F) employ planning and time-management skills and tools with increased fluency to enhance results and complete work tasks.  (2) The student implements advanced professional communications strategies. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary with increased fluency when analyzing information and following directions;  (B) demonstrate verbal and non-verbal communication consistently in a clear, concise, and effective manner;  (C) analyze, interpret, and effectively communicate information, data, and observations;  (D) observe and interpret verbal and nonverbal cues and behaviors to enhance communication; and  (E) apply active listening skills to obtain and clarify information.  (4) The student understands and applies proper safety techniques in the workplace. The student is expected to:  (A) demonstrate an understanding of and consistently follow workplace safety rules and regulations;  (B) demonstrate safe operation of tools and equipment;  (C) describe and perform hazard analysis; and  (D) demonstrate knowledge of procedures for reporting and handling accidents and safety incidents.  (5) The student understands the professional, ethical, and legal responsibilities in agriculture, food, and natural resources. The student is expected to:  (A) demonstrate a positive, productive work ethic by performing assigned tasks as directed;  (B) apply ethical reasoning to a variety of situations in order to make ethical decisions; and  (C) comply with all applicable rules, laws, and regulations in a consistent manner. | |
| **Section 2: TEKS Checklist Components for Extended Practicum in Agriculture, Food, and Natural Resources**  Students, parents/guardians, and instructional/workplace supervisors will review, understand, and agree to a checklist of practicum objectives. Checklists may be locally adapted/modified, but all corresponding TEKS Checklist Components must be addressed. | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (A) participate in a paid or unpaid, laboratory- or work-based application of previously studied knowledge and skills related to agriculture, food, and natural resources;  (B) participate in training, education, or preparation for licensure, certification, or other relevant credentials to prepare for employment;  (C) demonstrate professional standards and personal qualities needed to be employable such as punctuality, time management, initiative, and cooperation with increased fluency;  (D) complete tasks with high standards to ensure quality products and services;  (E) employ teamwork and conflict-management skills with increased fluency to achieve collective goals; and  (F) employ planning and time-management skills and tools with increased fluency to enhance results and complete work tasks.  (2) The student implements advanced professional communications strategies. The student is expected to:  (A) apply appropriate content knowledge, technical concepts, and vocabulary with increased fluency when analyzing information and following directions;  (B) demonstrate verbal and non-verbal communication consistently in a clear, concise, and effective manner;  (C) analyze, interpret, and effectively communicate information, data, and observations;  (D) observe and interpret verbal and nonverbal cues and behaviors to enhance communication; and  (E) apply active listening skills to obtain and clarify information.  (3) The student applies concepts of critical thinking and problem solving. The student is expected to:  (A) employ critical-thinking skills with increased fluency both independently and in groups to solve problems and make decisions; and  (C) demonstrate the use of content, technical concepts, and vocabulary when analyzing information and following directions.  (4) The student understands and applies proper safety techniques in the workplace. The student is expected to:  (A) demonstrate an understanding of and consistently follow workplace safety rules and regulations;  (B) demonstrate safe operation of tools and equipment;  (C) describe and perform hazard analysis; and  (D) demonstrate knowledge of procedures for reporting and handling accidents and safety incidents.  (5) The student understands the professional, ethical, and legal responsibilities in agriculture, food, and natural resources. The student is expected to:  (A) demonstrate a positive, productive work ethic by performing assigned tasks as directed;  (B) apply ethical reasoning to a variety of situations in order to make ethical decisions; and  (C) comply with all applicable rules, laws, and regulations in a consistent manner.  (6) The student participates in an agriculture, food, or natural resources experience. The student is expected to:  (A) conduct, document, and evaluate learning activities in a supervised agriculture, food, or natural resources experience;  (D) practice equipment maintenance procedures, as appropriate;  (E) decide between replacement, maintenance, repair, and reconditioning of agricultural vehicles and machinery, as appropriate; and  (H) collect representative work samples. | |
| **Section 3: Critical-Thinking and Problem-Solving: Practicum Check-In 1**  Students will discuss and demonstrate critical thinking and problem-solving skills as they participate in check-in(s) with supervisors throughout their practicum experiences. Students will analyze and evaluate their practicum experiences as they describe how they have applied critical-thinking and problem-solving skills, and alternative solutions to possible problems they have encountered thus far or may still encounter. Students will also be encouraged to discuss and predict what content knowledge and technical skills will be necessary for a successful practicum experience as well as a successful career in an agriculture, food, and/or natural resources-related field. | (3) The student applies concepts of critical thinking and problem solving. The student is expected to:  (A) employ critical-thinking skills with increased fluency both independently and in groups to solve problems and make decisions;  (B) analyze elements of a problem to develop creative and innovative solutions; and  (C) demonstrate the use of content, technical concepts, and vocabulary when analyzing information and following directions.  (6) The student participates in an agriculture, food, or natural resources experience. The student is expected to:  (A) conduct, document, and evaluate learning activities in a supervised agriculture, food, or natural resources experience; and  (B) develop advanced technical knowledge and skills related to the student's occupational objective. | |
| **Unit 4: Check List Progress and CTSO Activities: Practicum Check-In 2**  During this check-in, students will discuss and self-evaluate their practicum check list and corequisite course requirement progress as well as any questions or problems they may have encountered. Students will also discuss and share the record-keeping documentation completed thus far in the practicum experience, and discuss any further course requirements. | (6) The student participates in an agriculture, food, or natural resources experience. The student is expected to:  (A) conduct, document, and evaluate learning activities in a supervised agriculture, food, or natural resources experience; and  (C) demonstrate proper record-keeping skills related to the supervised agriculture, food, or natural resources experience. | |
| **Section 5: Practicum Culminating Activities**  During their practicum experience, students will use appropriate technology and/or assigned materials to develop advanced technical knowledge and skills. In practicum culminating activities, students will reflect upon and discuss their practicum experiences as well as the skills they have developed as part of the practicum. Students will self-evaluate their strengths and weaknesses in technical skill proficiency, and discuss their analysis with their supervising instructor.  As a culminating project for the practicum, students will demonstrate growth of technical skill competencies and share representative work samples in a brief presentation. | (6) The student participates in an agriculture, food, or natural resources experience. The student is expected to:  (A) conduct, document, and evaluate learning activities in a supervised agriculture, food, or natural resources experience;  (B) develop advanced technical knowledge and skills related to the student's occupational objective;  (C) demonstrate proper record-keeping skills related to the supervised agriculture, food, or natural resources experience;  (F) demonstrate growth of technical skill competencies;  (G) evaluate strengths and weaknesses in technical skill proficiency; and  (H) collect representative work samples. | |